

AUG 06 2007

Appln. No. 10/804,448

Attorney Docket No. 10541-1942

## I. Amendments to the Claims

1-4. (Cancelled).

5. (Currently Amended): ~~The resonator according to claim 3,~~ A resonator for attenuating pressure pulsations received through an air passage, the resonator comprising:

a housing defining a resonator chamber;

a movable member located within the resonator chamber and cooperating with the housing to divide the resonator chamber into first and second volumes;

a first port coupling the first volume with the air passage;

a second port coupling the second volume with the air passage;

a first valve located within the first port to selectively connect the first volume with the air passage;

a second valve located within the second port to selectively connect the second volume with the air passage; and

an actuator coupled to the movable member and configured to move the movable member thereby changing the first and second volume;

wherein the actuator is configured to move the movable member thereby decreasing the first volume as the rpm of the engine increases and while the first valve is open;

wherein the second valve is configured to open corresponding to a change in the rpm of the engine;

wherein the first valve is configured to close corresponding to a change in the rpm of the engine; and

wherein the actuator is configured to move the member thereby decreasing the second volume corresponding to an increase in the rpm of the engine when the second valve is open.

6. (Currently Amended): The resonator according to claim ~~[[1]]~~ 5, wherein the first valve is a solenoid.

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7. (Original): The resonator according to claim 6, wherein the second valve is a solenoid.

8. (Currently Amended): The resonator according to claim [[1]] 5, wherein the actuator is an electric motor.

9-13. (Cancelled).

14. (Currently Amended): ~~The resonator according to claim 12,~~ A resonator for attenuating pressure pulsations received through an air passage, the resonator comprising:

a housing defining a resonator chamber;

a movable member located within the resonator chamber and cooperating with the housing to divide the resonator chamber into first and second volumes;

a first port coupling the first volume with the air passage;

a second port coupling the second volume with the air passage;

a first valve located within the first port to selectively connect the first volume with the air passage;

a second valve located within the second port to selectively connect the second volume with the air passage;

an actuator coupled to the movable member and configured to move the movable member thereby changing the first and second volume; and

a controller in communication with the first valve, the second valve, and the actuator, the controller being configured to selectively actuate the first and second valve and manipulate the actuator to position the movable member;

wherein the controller is configured to drive the actuator moving the movable member thereby decreasing the first volume as the rpm of the engine increases and while the first valve is open;

wherein the controller is configured to open the second valve corresponding to the shift in the rpm of the engine;



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wherein the controller is configured to close the first valve corresponding to the shift in the rpm of the engine; and

wherein the controller is configured to drive the actuator moving the movable member thereby decreasing the second volume corresponding to an increase in the rpm of the engine when the second valve is open.

15. (Currently Amended): The resonator according to claim ~~[[10]]~~ 14, wherein the first valve is a solenoid.

16. (Original): The resonator according to claim 15, wherein the second valve is a solenoid.

17. (Currently Amended): The resonator according to claim ~~[[10]]~~ 14, wherein the actuator is an electric motor.

18-25. (Cancelled).

26. (Currently Amended): The system according to claim ~~[[1]]~~ 5, wherein moving the movable member increases the first volume while decreasing the second volume.

27. (Currently Amended): The system according to claim ~~[[10]]~~ 14, wherein moving the movable member increases the first volume while decreasing the second volume.

28. (Cancelled).



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